UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,819	09/15/2000	Katsuaki Tajima	48864-032	2961

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EXAMINER
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ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/662,819	TAJIMA ET AL.
	Examiner	**Art Unit**	
	Madeleine AV Nguyen	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 August 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9 and 18-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-7,9 and 18-20</u> is/are rejected.

7)☒ Claim(s) <u>8</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on August 01, 2005 have been fully considered but they are

not persuasive for the following reasons:

a.   Applicant remarks that I the office action, the Examiner states a controller for

setting a parameter... and then admits that "Zingher et al does not directly teach setting

the parameter that was used ..." (pages 9-10).

It is noted that, as stated in the office action, "Zingher et al does not directly teach setting

the parameter ... by comparing an interval between the received job and the last job with a

predetermined time" The underlined sentence is the limitation that Zingher et al does not

directly teach. However, from the discussion in the office action (pages 3-4), it is noted that the

controller sets a parameter for the received job in accordance with the state (content) of the

image data. For instance, in the Objects and Summary of the Invention, Zingher teaches that "In

this case, compared with one another in pairs means that, depending on the color separation, two

image contents are compared on a pixel by pixel basis or image data may be combined in some

manner, for example, averaged, before being compared." (col. 3, lines 8-20), "it is intended that

the amount of time and the working steps necessary for changing from one print job to the next

be optimized in terms of time" (col. 3, lines 3-7), and "the setting time needed to change from at

least one print job to the next print job ..." (col. 4, lines 7-11). That means that although Zingher

does not specifically teach that the comparison of the setting time (interval) between the receive

job and the last job in case of setting new or old parameter from the last job, Zingher teaches that

the time needed for changing the setting from one print job to the next different print job is

longer than the time needed to used the setting of the last print job since it requires more steps

and more time. For instance, Zingher teaches a program stored in EPROM to decide whether to

change the printing form or not for the next printing job (col. 5, lines 1-2), the time needed to

change the printing form and the time needed to change the inking unit in case the printing form

is changed (col. 8, lines 56-64; col. 10, lines 16-34; col. 11, lines 14-16). Thus, the controller in

Zingher sets a parameter (order sequence of the printing forms) for the received job in

accordance with the state that is decided by the decision portion (decision whether the image

content of the received job is the same or different with the previous job based on the color

separations of the image contents) like the last steps in Fig.4. To sum, although Zingher teaches

different way the controller sets a parameter but that has the same purpose and result as claimed

in the invention.

        b.   For claim 2, Applicant remarks that Zingher does not disclose that the decision

portion decides whether the image data of the received job are data within a predetermined color

range (page 13).

        As stated in the rejection, a predetermined color range is based on the single color, two-

color, three-color or multicolor print jobs. Zingher teaches that the controller decides whether

the image data of the received job is single color, two-color, three-color or multicolor. For

instance, Zingher teaches the case of single-color print jobs, "In the exemplary embodiment

explained above, this concerns a total of five single-color print jobs ..." (col. 8, lines 21-24) and

the case of multicolor print job, "In the case of two-color, three color or multicolor print jobs, the

image contents of the individual colors (following a color separation) are also compared with one

another pixel by pixel for use in the re-sorting process." (col. 8, lines 29-33). In other words, Zingher teaches "the respective color separations for each print job are compared with one another for used in the step of ordering" (col. 9, lines 40-42) which is equivalent to the decision whether the image data of the received job are data within a predetermined color range.

       c.   For claim 3, Zingher has nothing to do with an image processor performs a color compression of the image data of the received job in accordance with the set parameter (page 14).

       Fig.2 reproduces a total of two rewriting processes in order to generate a printing form D.1 from a printing form D.5 according to the image content B.5 into a printing form D.1 corresponding to the image content B.1 wherein, following the point-by-point erasure or refilling of the corresponding tin bowls of the initial printing form D.5, an intermediate printing form D.5' is generated which contains the intersecting set of the corresponding image contents B.1-B.5, and the respective ink-accepting parts are reproduced in a hatched manner (col. 6, line 21 – col. 7, line 18). Thus, the microprocessor in Zingher performs color compression where ink-accepting regions of the image are reproduced in accordance with a set parameter (order of the printing forms).

       d.   Regarding claim 6, Applicant remarks that there is no description in Zingher et al that the RAM memorizes a parameter set by the controller along with the control information.

       It is a matter of well known in the prior art that the RAM in Zingher can memorize parameters and other information set by the controller. Zingher teaches in Figs. 1 and 5 the data processing device (DV) having a microprocessor, memory devices such as a RAM, an EPROM and appropriate processing hardware and/or software for determining the sequence for printing.

"In particular, the program to implement the method set forth herein is stored in the EPROM

while the pixel data relating to the images are stored in the RAM. The data processing device

DV may also be fed additional information which can be derived from the image contents B.1-

B.5 of the individual print jobs ..." (col. 4, line 51 – col. 5, line 7). Fig.4 teaches the steps of

enter a sequence of images to be printed, compare image information among the images to be

printed, assign a figure of merit for each compared pair of images, re-order the sequence of print

jobs, write the print forms ... which requires a storage to store different information. Since

Zingher teaches memory devices such as RAM and appropriate processing hardware, it is

assume that the RAM and appropriate processing hardware can memorize set parameter or input

parameter since it was commonly known that a RAM can perform the limitation claimed in

claim 6. In addition, Zingher teaches the well known prior art in the Background of the

Invention such as "DE 4445393 A1 discloses a copying and/or printing device in which a so-

called buffer store is provided which, in order to carry out appropriately prioritized print jobs as

rapidly as possible, can be changed over from a first-in/first-out sequence into a first-in/last-in

sequence... print jobs following one another are carried out in the sequence in which they were

written into the buffer store" (col. 1, lines 52-59) or DE3128360C2 discloses a printer having a

printing buffer store, an input buffer store and a sorting store, so that information which is

downloaded to the device is separated and sorted (col. 2, lines 1-9). Therefore, it would have

been obvious at the time the invention was made as a matter of well known in the prior art to

consider the RAM or any memory device in Zingher can memorize the set and input parameter

as claimed in claim 6 since Zingher teaches the steps as described in Figs.2-3 that need a

memory to store different information.

e.   Regarding claims 7, 9, Applicant remarks that Zingher does not disclose or

suggest anything about the controller sets a specific parameter to the image processor when a

predetermined time passed after the end of the job or that the predetermined time is variable.

Zingher teaches two different devices: data processing device DV and data generating

device DE. After the end of the printing job, DV set a predetermined time for setting parameters

for a new print form and then sets a specific parameter to the image processor to sent data

information to DE for setting a new inking distribution to generate a new printing form (Figs. 1,

3; col. 7, lines 22-45; col. 8, lines 2-13). In addition, since different modification or adjustment

requires different setting time, the predetermined time is variable.

Therefore, the rejection of claims 1-7, 9, 18-20 is maintained.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-7, 9, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Zingher et al (US Patent No. 5,930,468).

Concerning claim 1, Zingher et al discloses an image processing apparatus (DV in Fig. 1

or Fig. 5) for receiving a job including image data and for processing the image data of the

received job so as to give the job to an output device, the image processing apparatus comprising

an image processor (I/O) for performing a process defined by a parameter on the image data of

the received job; a decision portion (EPROM) for deciding a state of the image data of the

received job; and a controller (microprocessor) for setting a parameter for the received job in

accordance with the state that is decided by the decision portion or setting the parameter that was

used in the last job despite the state that is decided by the decision portion based on a predefined

period of time.

Zingher et al does not directly teach that the controller sets a parameter in accordance

with the state that is decided by the decision portion or sets the parameter that was used in the

last job by comparing an interval between the received job and the last job with a predetermined

time. However, Zingher et al teaches a sequence of printing jobs wherein the controller

compares the contents of the images according to a program stored in the EPROM to decide to

change the printing form or not. If the contents of the images are different, the printing form of a

previous printing job has to be changed to a new printing form for the next printing job, if the

contents of the images of the printing jobs are the same, there is no need to change the printing

form (Fig.4). In case of changing the printing form, the apparatus set a predetermined time

needed to change the printing form of a previous printing job to a new printing form for the next

printing job after the previous printing job is completed. Thus by comparing an interval between

the next printing job and the completed previous printing job with the predetermined time, the

microprocessor can set the parameter for the next printing job to a new printing form or to the

parameter of the previous printing job. If the interval is longer than the predetermined time, the

microprocessor set the parameter for a new printing form according to the decision portion, in

the other way, if the interval is shorter than the predetermined time, the microprocessor uses the

same parameters set in the printing form of the previous printing job since there is no change in

the image contents of the printing jobs. It would have been obvious to one skilled in the art at the time the invention was made to add the comparison between the interval between the previous printing job and the next printing job with the predetermined time for changing a printing form from the precious printing job to a new printing form for the next printing job in Zingher et al so that the microprocessor in the apparatus in Zingher et al can use the same printing form or change to a new printing form based on the comparison since Zingher et al teaches the comparison of the image contents of the printing jobs (col. 3, lines 8-23) setting of different times such as execution times of the printing jobs, setting time needed to change from one print job to the next print job, setting time needed to change from one printing form of one printing job to a new printing form of another printing job when the image contents are different, time to change the ink profile, readjustment times (Abstract; col. 3, lines 1-7, lines 66-67; col. 4, lines 9-11; col. 8, lines 56-64; col. 10, lines 17-20, lines 33-34; col. 11, lines 14-15).

Concerning claims 2-7, 9, Zingher et al further teaches that the decision portion decides whether the image data of the received job are data within a predetermined color range (single color, two-color, three-color or multicolor print jobs; ink distribution), (col. 3, lines 8-23; col. 4, lies 52-53; col. 8, lines 29-33, lines 56-64), (claim 2); the image processor perform a color compression of if at least one page (one region or a part of the image) is out of the predetermined color range (ink-accepting regions and non-ink-accepting regions), (col. 6, lines 1-52; col. 8, lines 56-64), (claims 3-5); a memory (RAM) for memorizing a parameter set by the controller along with the control information and a user interface (I/O) for selecting operation of the parameter, (claim 6); the controller sets a specific parameter to the image processor when a predetermined time passes after the end of the job (predetermined time set for changing a

printing form of the previous printing job to a new printing form of the next printing job)

wherein the predetermined time is variable (depending on the time needed to change from one

printing form to another one based on the differences of the image contents of the printing jobs),

(col. 3, lines 8-28; col. 3, line 66 – col. 4, line 17; col. 5, lines 27-41; col. 8, lines 53-64), (claims

7, 9).

Claims 18-20 are method claims of apparatus claims 1-7, 9. Claims 18-20 are rejected

for the same rationales set forth for claims 1-7, 9 above.

Allowable Subject Matter

3.   Claim 8 is objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

4.   The following is an Examiner's Statement of Reasons for Allowance: Claim 8 is

allowable over the prior art of record because the Examiner found neither prior art cited in its

entirety, nor based on the prior art, found any motivation to combine any of the said prior art

which teaches the apparatus claimed in claims 6, 7 wherein the specific parameter is a parameter

that has the largest set frequency among the parameters memorized in the memory.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-

7466. The examiner can normally be reached on Monday, Tuesday, Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly A. Williams can be reached on 571 272-7471. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

October 11, 2005